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U.S. Patent Application Serial No. 10/829,018  
Reply to Office Action dated July 12, 2006

REMARKS

In the subject Action, claims 1-4 were rejected. Applicant has amended claim 1. Claims 2 and 4 have been canceled without prejudice or disclaimer. Claims 1 and 3 remain pending in the present application. In light of the foregoing amendments and the following remarks, Applicant respectfully requests withdrawal of the pending rejections and advancement of this application to allowance.

Specification

The Abstract of the disclosure was objected to because it was too long. Applicant has amended the Abstract and asserts that the objection has been overcome.

Rejections under 35 U.S.C. § 112

Claims 1-4 were rejected under § 112, second paragraph, as being indefinite. In particular, the Office Action states that the phrase "etc." renders the claim(s) indefinite and the scope of the claim(s) unascertainable. Applicant respectfully traverses this rejection.

Applicant has amended claim 1 including deleting the phrase "etc." Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection.

Rejections under 35 U.S.C. § 103

Claims 1-4 were rejected under § 103(a) as being obvious given Harada et al. (U.S. Patent No. 5,700,127) in view of Nering et al. (U.S. Patent No. 6,082,951). Applicant respectfully traverses this rejection.

Claim 1 recites, among other things, an air solenoid valve to drive a pneumatic actuating unit in response to a locking signal or unlocking signal when the locking signal or unlocking signal is input from the control board to the air solenoid valve, thus controlling a flow of pressurized air. Claim 1 also recites a cylinder actuator to extend or retract according to the flow of the pressurized air controlled by the air solenoid valve.

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In contrast – and as admitted by the Examiner at paragraph 12 of the Office Action -- Harada et al. fails to disclose an air solenoid valve and a cylinder actuator.

Nering et al. also fails to disclose or suggest the air solenoid valve and the cylinder actuator recited in claim 1 of the present application. Rather, Nering et al. discloses that an actuator 120 is mounted on a pod door receiver and connected to at least one of the door latching mechanisms 108 by a rod 121. The two door latching mechanisms are connected either by a tie rod 122 or a belt assembly so that rotation of one latching mechanism 108 causes synchronized rotation of the second mechanism. See, e.g., col. 5, ll. 16-46; Figs. 7a, 7b, 8 and 9. In other words, the latching mechanism in Nering et al. is not to lock a wafer carrier to prevent the wafer carrier's movement, but instead is intended to open the front door of the wafer carrier in order to introduce a wafer into the innerspace of the wafer carrier. In the present application, the cylinder actuator is used to extend or retract according to the flow of the pressurized air controlled by the air solenoid valve in order to fix the wafer carrier. Therefore, Nering et al. fails to disclose or suggest the air solenoid valve to drive a pneumatic actuating unit in response to a locking signal or unlocking signal, and the cylinder actuator to extend or retract according to the flow of the pressurized air controlled by the air solenoid valve as recited in claim 1 of the present application.

Moreover, Harada et al. discloses that the locking mechanism 50 may be operated according to command signals transmitted by the CPU 8 communicating with a host computer. However, the locking mechanism 50 may not be operated according to signals output from the CPU 8 by itself because the CPU 8 is designed to be controlled under the host computer. See, e.g., Fig. 1. On the other hand, the locking unit recited in claim 1 of the present application can be operated not only according to locking or unlocking signal output from a control board communicating with main equipment, but also according to locking or unlocking signal output from the control board itself.

Therefore, even if it is proper to combine the cited references, the combination fails to disclose or suggest an air solenoid valve to drive a pneumatic actuating unit in response to a

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locking signal or unlocking signal when the locking signal or unlocking signal is input from the control board to the air solenoid valve, thus controlling a flow of pressurized air, and a cylinder actuator to extend or retract according to the flow of the pressurized air controlled by the air solenoid valve recited in claim 1. Accordingly, reconsideration and allowance of claim 1 are respectfully requested for at least the above reasons.

Claim 3 is a dependent claim and so is also believed to be allowable over the art of record. Applicant has cancelled claims 2 and 4. In view of the cancellations, the rejections of claims 2 and 4 are now moot. Applicant does not otherwise concede the correctness of the rejection and reserves the right to make additional arguments as may be necessary. Applicant respectfully requests reconsideration and withdrawal of the pending rejections.

Conclusion

This response is believed to be responsive to all points raised in the Office Action. Accordingly, Applicant respectfully requests reconsideration and allowance of all of the currently pending claims. Should the Examiner have any remaining questions or concerns, the Examiner is urged to contact the undersigned attorney at 612.336.4755 to discuss the same.

Respectfully submitted,

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